

Claims

- [c1] 1. A computer readable storage medium having data stored therein representing software readable by a computer, the software including instructions for securing digital information to reduce unauthorized use of the digital information, the computer readable storage medium comprising:
software including data representing digital content; and
at least one identifier associated with the software prior to distribution of the software, the identifier being detectable by an authorized representative to request authentication of the software.
- [c2] 2. The computer readable storage medium of claim 1 wherein the software is self activating and self authenticating in conjunction with an authorized representative located on or in the user device.
- [c3] 3. The computer readable storage medium of claim 1 wherein the digital content is selected from the group consisting of data representing music, data representing video, instructions executable by a computer, code for an application program, code for an operating system component, code for a game, data representing a movie,

data representing graphics, data representing water-marked works, data representing a magazine, and data representing a book.

- [c4] 4. The computer readable storage medium of claim 1 wherein the identifier is hidden from the user.
- [c5] 5. The computer readable storage medium of claim 1 wherein the identifier is tamper resistant to the user.
- [c6] 6. The computer readable storage medium of claim 1 wherein the at least one identifier is embedded within a file of at least one component of the software.
- [c7] 7. The computer readable storage medium of claim 1 wherein the at least one identifier is a binary code.
- [c8] 8. The computer readable storage medium of claim 1 wherein the at least one identifier is encrypted.
- [c9] 9. The computer readable storage medium of claim 1 wherein the software comprises electronically distributed software.
- [c10] 10. The computer readable storage medium of claim 1 wherein the software comprises software distributed on a computer readable storage medium.
- [c11] 11. The computer readable storage medium of claim 1

further comprising:

instructions for performing a process to determine whether an attempted access to the software is authorized based on detection of the at least one identifier.

[c12] 12. The computer readable storage medium of claim 11 wherein the instructions for performing a process comprise:

instructions for determining whether the attempted access to the software is authorized based on registration information associated with the software.

[c13] 13. The computer readable storage medium of claim 11 wherein the instructions for performing a process comprise:

instructions for determining whether the attempted access to the software is authorized based on registration information associated with the software and registration information associated with a user device.

[c14] 14. The computer readable storage medium of claim 1 further comprising:

instructions for communicating registration information to an authorized representative of the software;

instructions for generating at least one authentication code based on the registration information; and

instructions for associating the authentication code with

the software.

- [c15] 15. The computer readable storage medium of claim 14 wherein the at least one identifier triggers authorized representative functions implemented by a user device.
- [c16] 16. The computer readable storage medium of claim 14 wherein the at least one identifier activates authorized representative functions implemented by software.
- [c17] 17. The computer readable storage medium of claim 14 wherein the at least one identifier initiates authorized representative functions implemented by hardware.
- [c18] 18. The computer readable storage medium of claim 17 wherein the at least one identifier initiates authorized representative functions that are implemented by hardware and software.
- [c19] 19. The computer readable storage medium of claim 1 wherein the at least one identifier is included in a file name for at least one component of the software.
- [c20] 20. The computer readable storage medium of claim 19 wherein the identifier is selected from the group consisting of a filename, a filename prefix, a filename suffix, a filename extension, a filename extension prefix, and a filename extension suffix.

- [c21] 21. The computer readable storage medium of claim 19 wherein the identifier is tamper resistant to the user.
- [c22] 22. The method of claim 19 wherein the identifier is hidden to the user.
- [c23] 23. A computer readable storage medium having data stored therein representing software readable by a computer, the computer readable storage medium including instructions for reducing unauthorized use of the software, the computer readable storage medium comprising:
software including data representing digital content; and
a plurality of identifiers associated with the software prior to distribution of the software, at least one identifier being detectable by an authorized representative to request authentication of the software.
- [c24] 24. The computer readable storage medium of claim 23 wherein the software is self activating and self authenticating in conjunction with an authorized representative located on or in the user device.
- [c25] 25. The computer readable storage medium of claim 23 wherein at least one of the identifiers is an activation code that must be entered prior to enabling the software.

- [c26] 26. The computer readable storage medium of claim 23 wherein the digital content is selected from the group consisting of data representing music, data representing video, instructions executable by a computer, code for an application program, code for an operating system component, code for a game, data representing a movie, data representing graphics, data representing water-marked works, data representing a magazine, and data representing a book.
- [c27] 27. The computer readable storage medium of claim 23 wherein the at least one identifier is hidden from the user.
- [c28] 28. The computer readable storage medium of claim 23 wherein the at least one identifier is tamper resistant to the user.
- [c29] 29. The computer readable storage medium of claim 23 wherein the at least one identifier is embedded within a file of at least one component of the software.
- [c30] 30. The computer readable storage medium of claim 23 wherein the at least one identifier is a binary code.
- [c31] 31. The computer readable storage medium of claim 23 wherein the at least one identifier is encrypted.

[c32] 32. The computer readable storage medium of claim 23 wherein the software comprises electronically distributed software.

[c33] 33. The computer readable storage medium of claim 23 wherein the software comprises software distributed on the computer readable storage medium.

[c34] 34. The computer readable storage medium of claim 23 further comprising:
instructions for performing a process to determine whether an attempted access to the software is authorized based on detection of the at least one identifier.

[c35] 35. The computer readable storage medium of claim 34 wherein the instructions for performing a process comprise:
instructions for determining whether the attempted access to the software is authorized based on registration information associated with the software.

[c36] 36. The computer readable storage medium of claim 34 wherein the instructions for performing a process comprise:
instructions for determining whether the attempted access to the software is authorized based on registration information associated with the software and registration

information associated with a user device.

- [c37] 37. The computer readable storage medium of claim 23 further comprising:
instructions for communicating registration information to an authorized representative of the software;
instructions for generating at least one authentication code based on the registration information; and
instructions for associating the authentication code with the software.
- [c38] 38. The computer readable storage medium of claim 37 wherein the at least one identifier triggers authorized representative functions implemented by a user device.
- [c39] 39. The computer readable storage medium of claim 37 wherein the at least one identifier triggers authorized representative functions implemented by software.
- [c40] 40. The computer readable storage medium of claim 35 wherein the at least one identifier triggers authorized representative functions implemented by hardware.
- [c41] 41. The computer readable storage medium of claim 37 wherein the at least one identifier triggers authorized representative functions implemented by hardware and software.

- [c42] 42. The computer readable storage medium of claim 23 wherein the at least one identifier is included in a file name for at least one component of the software.
- [c43] 43. The computer readable storage medium of claim 42 wherein the identifier is selected from the group consisting of a filename, a filename prefix, a filename suffix, a filename extension, a filename extension prefix, and a filename extension suffix.
- [c44] 44. The computer readable storage medium of claim 42 wherein the identifier is tamper resistant to the user.
- [c45] 45. The computer readable storage medium of claim 42 wherein the identifier is contained within at least a portion of the filename hidden to the user.
- [c46] 46. A computer readable storage medium having data stored therein representing software readable by a computer, the computer readable storage medium including information for securing the software using at least one authorized representative entity installed on or in a user device, the computer readable storage medium comprising:
at least one identifier associated with the software to designate the software for protection from unauthorized use;

instructions for detecting the at least one identifier using the authorized representative installed on or in the user device;

instructions for determining whether the user device is authorized to access the software using the authorized representative entity installed on or in the user device;
and

instructions for controlling access to the software based on whether the user device is determined to be authorized.

[c47] 47. The computer readable storage medium of claim 46 wherein the software is self activating and self authenticating in conjunction with an authorized representative located on or in the user device.

[c48] 48. The computer readable storage medium of claim 46 further comprising:
instructions for determining whether the user device is authorized to access the software using a remotely located authorized representative entity in combination with the at least one authorized representative entity installed on or in the user device.

[c49] 49. The computer readable storage medium of claim 46 wherein the at least one authorized representative entity installed on or in the user device comprises a computer

chip.

[c50] 50. The computer readable storage medium of claim 46 wherein the at least one authorized representative entity installed on or in the user device comprises program instructions executed by a microprocessor.

[c51] 51. The computer readable storage medium of claim 50 wherein the program instructions comprise an operating system component.

[c52] 52. The computer readable storage medium of claim 50 wherein the program instructions comprise an application program.

[c53] 53. The computer readable storage medium of claim 50 wherein the program instructions comprise a driver for a secondary device.

[c54] 54. The computer readable storage medium of claim 46 wherein the instructions for determining whether the user device is authorized comprise:
instructions for comparing registration information associated with the user device to registration information associated with the software.

[c55] 55. The computer readable storage medium of claim 54 wherein the registration information associated with the

software is embedded within an authentication code.

- [c56] 56. The computer readable storage medium of claim 54 wherein the registration information associated with the software is encrypted.
- [c57] 57. The computer readable storage medium of claim 54 wherein the registration information includes hardware information.
- [c58] 58. The computer readable storage medium of claim 57 wherein the registration information includes hardware information associated with a unique user device.
- [c59] 59. The computer readable storage medium of claim 57 wherein the hardware information includes a serial number.
- [c60] 60. The computer readable storage medium of claim 57 wherein the registration information includes hardware information associated with a group of user devices.
- [c61] 61. The computer readable storage medium of claim 46 wherein the authorized representative entity is installed by a manufacturer of the user device.
- [c62] 62. The computer readable storage medium of claim 46 wherein the authorized representative entity is installed from a computer readable storage medium.

- [c63] 63. The computer readable storage medium of claim 46 wherein the authorized representative entity is installed from the software.
- [c64] 64. The computer readable storage medium of claim 46 wherein the authorized representative entity is downloaded to the user device.
- [c65] 65. The computer readable storage medium of claim 46 wherein the authorized representative entity is transferred to the user device from a network.
- [c66] 66. The computer readable storage medium of claim 46 wherein the instructions for controlling access comprise instructions for preventing the software from being transferred to a second user device.
- [c67] 67. The computer readable storage medium of claim 46 wherein the instructions for controlling access comprise instructions for preventing the software from being transferred to a user device if at least one authorized representative is not functional.
- [c68] 68. The computer readable storage medium of claim 46 wherein the instructions for controlling access comprise instructions for preventing the software from being installed on a user device if at least one authorized repre-

sentative is not present.

- [c69] 69. The computer readable storage medium of claim 46 wherein the instructions for controlling access comprise instructions for preventing the software from being executed by the user device.
- [c70] 70. The computer readable storage medium of claim 46 wherein the instructions for controlling access comprise instructions for providing limited access to the software.
- [c71] 71. The computer readable storage medium of claim 46 wherein the software comprises digital content.
- [c72] 72. The computer readable storage medium of claim 71 wherein the software is selected from the group consisting of data representing music, data representing video, instructions executable by a computer, code for an application program, code for an operating system component, code for a game, data representing a movie, data representing graphics, data representing watermarked works, data representing a magazine, and data representing a book.
- [c73] 73. The computer readable storage medium of claim 46 wherein the software comprises instructions for generating at least one authentication code based on registration information associated with the user device.

[c74] 74. The computer readable storage medium of claim 72 wherein the software comprises instructions for encrypting the authentication code.

[c75] 75. A computer readable storage medium having data stored therein representing software readable by a computer, the computer readable storage medium including data to reduce unauthorized use of the software, the computer readable storage medium comprising:
software including data representing digital content;
an identifier associated with the software indicating that protection from unauthorized use is desired;
instructions for communicating with an authorized representative entity to determine whether a user device attempting to access the software is authorized to access the software; and
instructions for controlling access to the software based on whether the user device is authorized.

[c76] 76. The computer readable storage medium of claim 75 wherein the identifier associated with the software is contained within a filename for the software.

[c77] 77. The computer readable storage medium of claim 75 wherein the authorized representative entity is a hardware device.

[c78] 78. The computer readable storage medium of claim 75 wherein the instructions for communicating with the authorized representative entity comprise instructions for communicating with at least one software module associated with the user device.

[c79] 79. The computer readable storage medium of claim 75 wherein the authorized representative entity is installed on the user device.

[c80] 80. The computer readable storage medium of claim 75 further comprising:
instructions for generating an authentication code based on registration information associated with the user device; and
instructions for associating the authentication code with the software.

[c81] 81. The computer readable storage medium of claim 75 wherein the instructions for communicating comprise:
instructions for generating an authentication code based on registration information associated with the user device; and
instructions for comparing the authentication code with a previously generated authentication code associated with the software to determine if the user device is au-

thorized.

- [c82] 82. The computer readable storage medium of claim 81 wherein the instructions for comparing the authentication code comprise instructions for determining if at least a portion of system information associated with the user device matches system information encoded within the authentication code associated with the software.
- [c83] 83. The computer readable storage medium of claim 80 wherein the registration information includes hardware-specific information.
- [c84] 84. The computer readable storage medium of claim 75 wherein the authorized representative entity is installed on or in the user device.
- [c85] 85. The computer readable storage medium of claim 75 wherein the digital content is selected from the group consisting of data representing music, data representing video, instructions executable by a computer, code for an application program, code for an operating system, code for a game, data representing a movie, data representing graphics, data representing watermarked works, data representing a magazine, and data representing a book.
- [c86] 86. The computer readable storage medium of claim 75

wherein the computer readable storage medium comprises a plurality of computer readable storage media in communication via a network.

[c87] 87. The computer readable storage medium of claim 75 wherein the computer readable storage medium comprises a disk drive.

[c88] 88. The computer readable storage medium of claim 75 wherein the computer readable storage medium comprises a memory card.